CASE STUDY
PILOT TUBE METHOD | GUIDED AUGER BORING

Project Name:
South Sarpy County Regional Wastewater System Phase 1A - Segment 3

Prime/Sub Contractors:
Iowa Trenchless - Panora, IA

Location:
Sarpy County, NE

Ground Conditions:
Peoria Loess

Akkerman Equipment:
Akkerman 240A GBM System, Gen. V Guidance System, 1525B-D Lube Pump

Pipe:
24-in. & 30-in. Steel Casing

Total Length/Longest:
Longest: 675-lf / Total Footage: 3,100-lf

PROJECT OVERVIEW

Experienced crews installed seven sets of dual crossings with a mere 3-LF horizontal separation between the casings. The 14 crossings totaled 3,100-LF of installed casing with the longest crossing reaching 675-LF. To complete the project in an accelerated timeline, Iowa Trenchless teamed up with K.W. Boring Inc. from Omaha, NE. Guided Auger Boring success!

THE CHALLENGES

- Tight Installation Tolerances: The project required seven sets of dual casing installations with only 3 feet of horizontal separation between them, demanding high precision to avoid alignment issues.
- Extended Crossing Lengths: With the longest single crossing spanning 675 feet, maintaining grade and accuracy over long distances was critical to project success.
- Time Constraints: The schedule was accelerated, necessitating streamlined operations and a collaborative approach to meet deadlines without compromising quality.
- Challenging Ground Conditions: Peoria Loess, a silty and potentially collapsible soil, required careful control during excavation to ensure bore stability and safe installation.

THE SOLUTION

- Precision Equipment Deployment: Iowa Trenchless utilized the Akkerman 240A GBM System with the Gen V Guidance System to achieve pinpoint accuracy in casing alignment across all crossings.
- Collaborative Execution: To meet the project timeline, Iowa Trenchless partnered with K.W. Boring Inc., effectively doubling capacity and enabling parallel operations.
- Lubrication Management: The 1525B-D Lube Pump was used to optimize lubrication delivery, minimizing friction and ground disturbance during long bores.
- Experienced Crews: Skilled operators executed complex bores with tight tolerances, ensuring safe, efficient, and accurate casing installations across all 14 runs.

OUTCOME

Iowa Trenchless and K.W. Boring successfully installed all 14 crossings—totaling 3,100 linear feet—on time and without incident. Precision tooling and expert crews enabled the safe, accurate placement of both 24-inch and 30-inch steel casings, even at long distances and with minimal horizontal separation. The project stands as a showcase of how guided auger boring, paired with close collaboration and reliable equipment, can deliver under complex trenchless demands.

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